AMENDMENTS TO THE CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

Listing of the Claims:

1. (Currently Amended) A method for depositing a dielectric layer having a multi-layer structure on a substrate, comprising:

forming an oxidation barrier layer on a surface of a substrate;

[[and]]

forming a plurality of dielectric layers on the oxidation barrier layer,

wherein one of a plurality of additional oxidation barrier layers is disposed between each of the plurality of dielectric layers and an adjacent dielectric layer; and

diffusing material in each of the oxidation barrier layers into adjacent dielectric layers sufficient to alter at least one characteristic of each of the plurality of dielectric layers.

2. (Currently Amended) The method as claimed in claim 1, wherein the material for each of the oxidation barrier layers is [[formed of a layer of a material]] selected from the group consisting of groups III, IV, and V [[metal electrodes]] metals and oxides thereof.

3. (Currently Amended) The method as claimed in claim 2, wherein the [[metal electrodes]] metals are selected from the group consisting of aluminum (Al), tantalum (Ta), titanium (Ti), hafnium (Hf), and zirconium (Zr).

4. (Original) The method as claimed in claim 2, wherein the metal oxide is selected from the group consisting of aluminum oxide (Al_2O_3), tantalum oxide (TaO), titanium oxide (TiO_2), hafnium oxide (HfO_2), and zirconium oxide (ZrO_2).

5. (Currently Amended) The method as claimed in claim 1, wherein each of the oxidation barrier layers has a thickness of between about one to two orders of magnitude [[tens to hundreds]] of Å.

6. (Original) The method as claimed in claim 1, wherein the thickness of each of the oxidation barrier layers is adjustable.

7. (Currently Amended) The method as claimed in claim 2, wherein the diffusing comprises diffusing the metal of the oxidation barrier layer [[is diffused]] into adjacent dielectric layers [[, and the metal is terminated by depositing the dielectric layer and performing a thermal process]] until none of an original metal compound remains in the oxidation barrier layer.

8. (Currently Amended) The method as claimed in claim 3, wherein the diffusing comprises diffusing the metal of the oxidation barrier layer [[is diffused]] into adjacent dielectric layers [[, and the metal is terminated by depositing the dielectric layer and performing a thermal process]] until none of an original metal compound remains in the oxidation barrier layer.

9. (Currently Amended) The method as claimed in claim 4, wherein the diffusing comprises diffusing the metal of the oxidation barrier layer [[is diffused]] into adjacent dielectric layers [[, and the metal is terminated by depositing the dielectric layer and performing a thermal process]] until none of an original metal compound remains in the oxidation barrier layer.

10. (Currently Amended) The method as claimed in claim [[7]] 16, wherein the thermal process is performed at a temperature lower than about 700°C.

11. (Currently Amended) The method as claimed in claim [[8]] 17, wherein the thermal process is performed at a temperature lower than about 700°C.

12. (Currently Amended) The method as claimed in claim [[9]] 18, wherein the thermal process is performed at a temperature lower than about 700°C.

13. (Original) The method as claimed in claim 1, wherein each of the oxidation barrier layers is deposited by a chemical vapor deposition (CVD) method.

14. (Original) The method as claimed in claim 1, wherein each of the dielectric layers is deposited by an atomic layer deposition (ALD) method or a CVD method.

15. (Original) The method as claimed in claim 1, wherein each of the dielectric layers is formed of a material selected from the group consisting of strontium titanate (STO),

barium titanate (BTO), barium strontium titanate (BST), lead lanthanium titanate (PLT), lead tantalum zirconium (PLZ), and strontium bismuth tantalite (SBT).

16. (New) The method as claimed in claim 7, wherein the diffusing comprises:

performing a thermal process on each oxidation barrier layer after adjacent dielectric layers are formed.

17. (New) The method as claimed in claim 8, wherein the diffusing comprises:

performing a thermal process on each oxidation barrier layer after adjacent dielectric layers are formed.

18. (New) The method as claimed in claim 9, wherein the diffusing comprises:

performing a thermal process on each oxidation barrier layer after adjacent dielectric layers are formed.

19. (New) The method as claimed in claim 1, wherein the at least one characteristic of the plurality of dielectric layers is a lattice constant.

20. (New) The method as claimed in claim 2, wherein the at least one characteristic of the plurality of dielectric layers is a lattice constant.